

ABSTRACT

A semiconductor device employs a support structure to mitigate damage to dielectric layers having a low dielectric constant (k). The semiconductor device includes at least one inter-level dielectric layer (ILD) comprising a material having a low dielectric constant (k), and at least one support structure disposed within the low-k dielectric layer. The support structure mitigates damage of the semiconductor device by providing a mechanically stable interface between two layers in the semiconductor device.